The Featurespace Platform Multi-tenancy solution

Provide real-time fraud protection with machine learning to your clients, while opening new revenue streams for your business

VISA

Open new revenue streams for your business with multi-tenancy capabilities

The Featurespace Multi-tenancy capability gives Issuers and Acquirers control over the experience available to your customers through a single instance.

- **Onboard and manage multiple tenants in a single instance**
- **Customizable tenant groupings and access**

Harness the power of machine learning

The Featurespace Platform is deployed in banks, payment processors, independent service providers and merchant acquirers across the world.

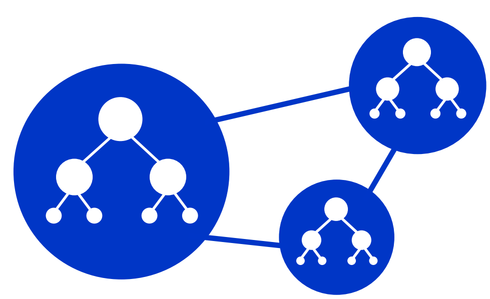
Adaptive Behavioral Analytics and Automated Deep Behavioral Networks – Featurespace's proprietary machine learning technology – monitor real-time customer data and accurately spot suspicious activity, empowering risk teams to prioritize alerts and detect criminal activity in real-time.

The Featurespace Platform profiles good behavior to detect bad actors. This enables financial institutions to identify legitimate customers without blocking their activity or impacting customer friction.

Actions taken by investigators are automatically fed back into the Featurespace Platform to continually update models with behavioral changes, improving future transaction monitoring.

The Featurespace Platform experience for your customers

- **Scores all types of transactions**
- **Zero model degradation – no retuning required**
- **Detects new types of fraud**
- **Reduces number of false positives**



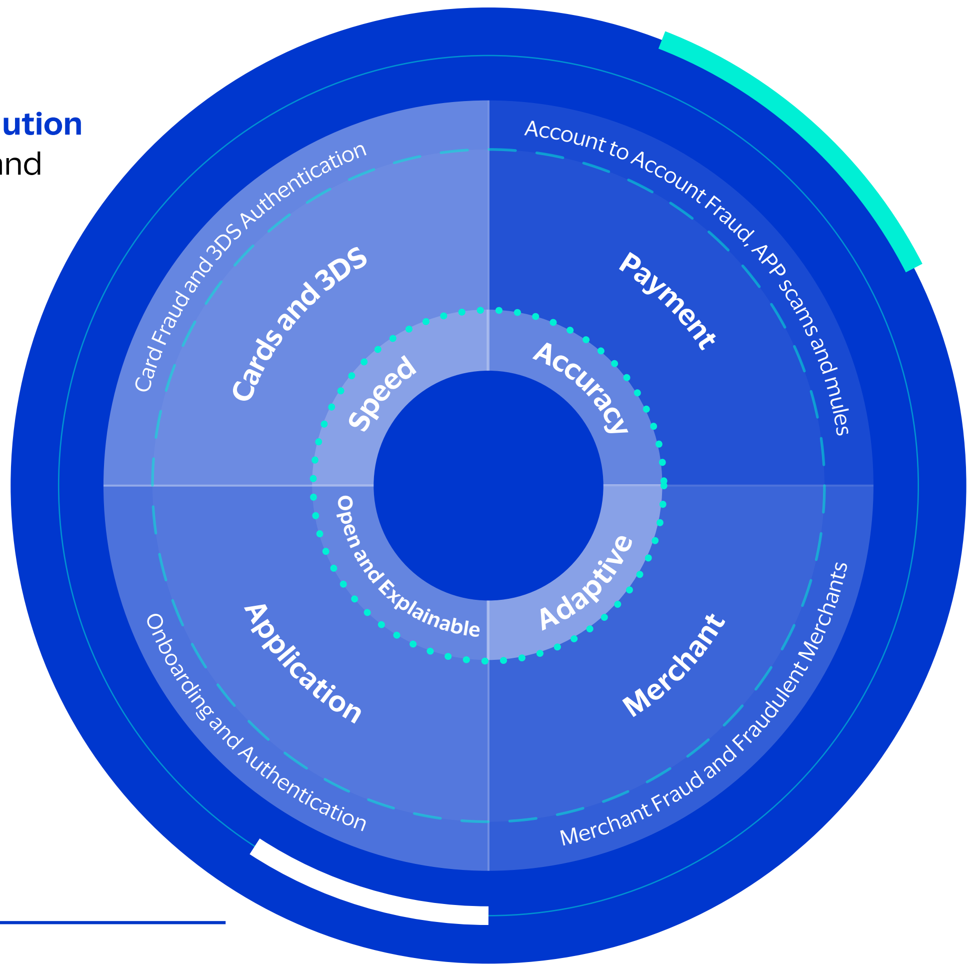
Multiple solutions, one platform

Featurespace Card Fraud Solution
Detect and prevent card fraud in real-time while maintaining the highest levels of customer experience.

Featurespace Payment Fraud Solution
Analyze and protect the entire payment journey with minimal manual intervention.

Featurespace Application Fraud Solution
Detect fraudulent applications early and accurately in the application process.

Featurespace Merchant Acquiring Fraud Solution
Monitor and identify merchant risk. Proactively identify anomalous charge-backs, transactional laundering, scheme breaches and bust-outs.



Customize the appearance of the Featurespace Platform to match your brand, configure the investigation screen for enhanced usability and offer tiered user access to best support your customers, all while providing award-winning protection across the board.

Provide comprehensive fraud detection from a single instance

Provision multiple individual customer instances from one multi-tenant configuration, offering immediate access to cutting-edge fraud and financial crime detection technology.

Onboard and manage multiple tenants in a single instance

One installation of the Featurespace Platform can service a landlord's customers (tenants) securely, with data segregation between tenants.

Scalable to your needs

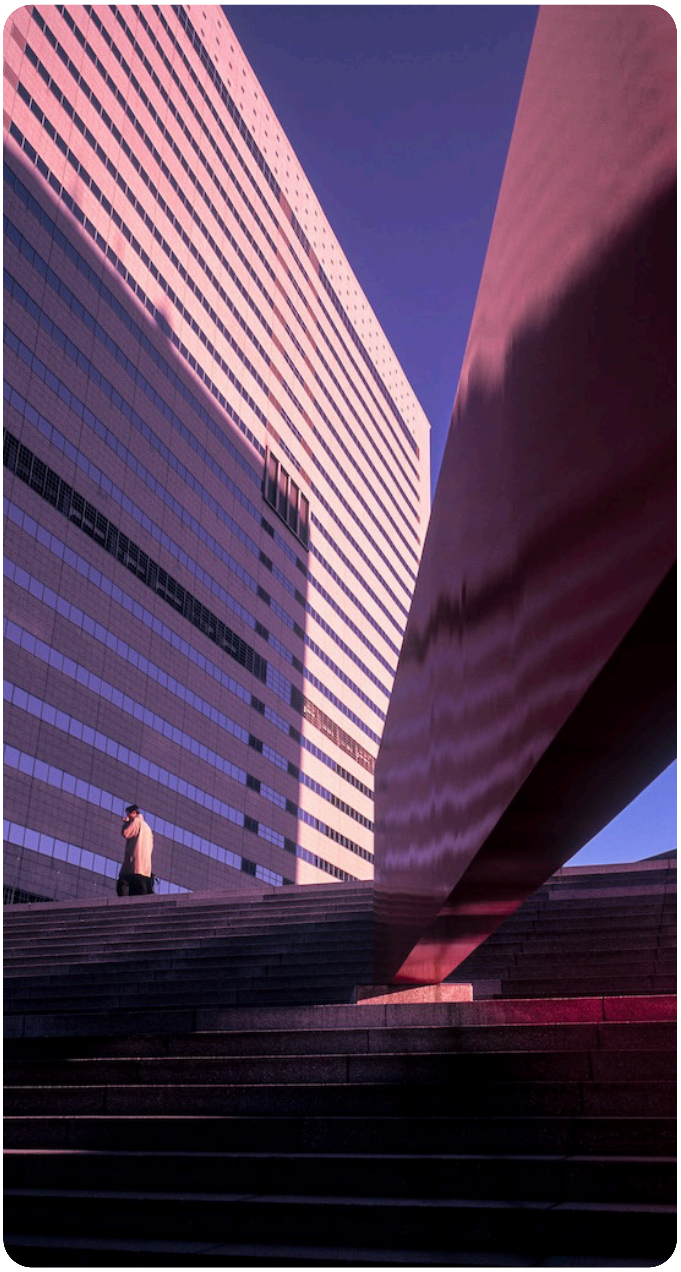
Scalable to handle the requirements of your business.

Customer tenant groupings and access

Set and manage tenant groups and hierarchies, applying set models and rules across Analytical Configuration Groups. Tier tenant access and user interface configuration, enabling structured packages to sell to your customers.

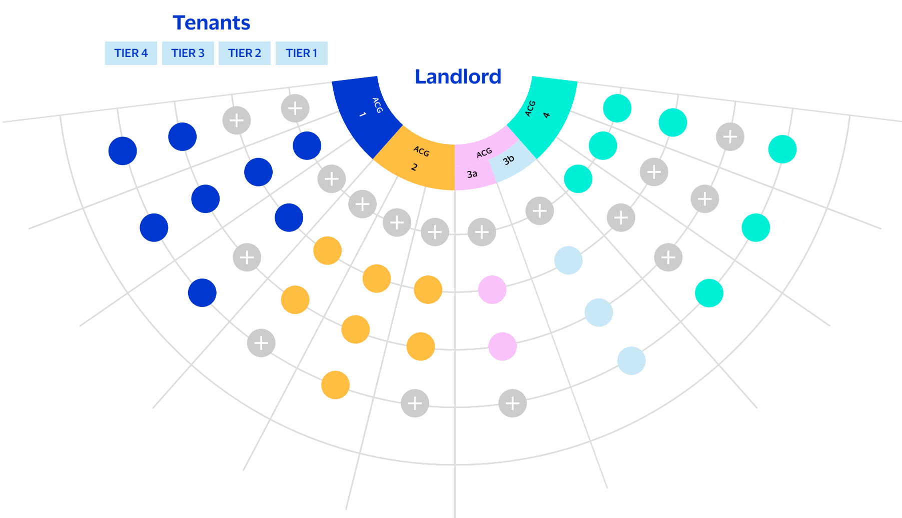
Full Segregation of Tenants

Tenants cannot access the data of other tenants, the landlord retains access to all the data.



Manage risk appetite

Enable tenants to control their own rules in accordance with their specific risk strategy while the landlord's industry vertical rules or models defined at the Analytical Config Group level continues to run on top of those defined by the tenants themselves.



Landlord creates new Analytical Config Group
The landlord sets universal rules and models hierarchy for the whole tenancy environment

↓

Specify models at tenant level
The defined risk model can be populated across all, or a subset of tenants (e.g. individual merchants)

↓

Reflect the risk appetite
If applicable, tenants can create rules in the Featurespace Platform as a subset of the global ruleset

Level 1

Fraud Scoring
Our fraud scoring Adaptive Behavioral Analytics and machine learning for small clients without a fraud team.

Level 2

Incident View
The Featurespace Platform monitors customer behavior for anomalies, highlighting potentially fraudulent behavior within a intuitive UI.

Basic Reporting
Provide your clients with reporting capabilities, demonstrating fraud blocked and reduction in genuine transactions declined.

Level 3

Advanced Reporting
Detailed reporting, giving you an unprecented level of insight into your fraud modeling.

Adjust Risk Thresholds
Adjust risk thresholds for some or all tenants, to reflect your level of risk appetite.

Model Analytics
Roll out fraud models by vertical (for example, airlines, retails, ticketing), creating a common framework for all clients in that vertical.

The Featurespace Platform functionality

The Featurespace Platform can be cloud or on-premise deployed

Adaptive Machine Learning Models and Automated Deep Behavioral Networks

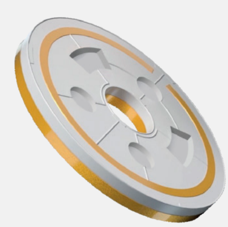
Both off-the-shelf and custom-built models are deployed by leading financial institutions to proactively detect fraud and money laundering, without the need to retrain models or to write new rules.

Off-the-shelf fraud models available include; Instant Payments, Bill Payments, ACH, Check, Wire, Person to Person (P2P), Debit Card, Commercial Card and Credit Card payments (inclusive of Card Present and Card-not-Present), ATM transactions, and other online banking initiated payment types.

Open Modeling Environment

Our platform for developing and deploying your own models using a suite of User Interface based and Command Line tools. First class performance reporting for third-party model formats (PMML, H20 or TensorFlow) within the platform, enables data science teams to evaluate model performance, make adjustments and deploy with zero downtime.

Adaptive Rules Engine



Utilize Adaptive Behavioral Analytics technology for adaptive rules which can be authored and configured by your risk analysts.

Sandbox

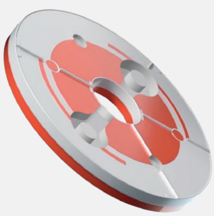
Author new rules, models and thresholds - and test the impact of these changes against production data.

Customer Data

Ingest, process and analyze customer data in real-time or batch across thousands of events per second, according to your business needs.

Third-Party Orchestration

Integrate the Featurespace Platform with a wide range of third-party enterprise systems.



Reporting

Multiple levels of reporting to meet your business needs such as integrating with your existing Business Intelligence tools or reporting software.

User Interface

Easy, intuitive access to investigate tools, incident and alert management and network analysis.

Multi-tenancy

Unlock new business opportunities with Multi-tenancy.
On-board and manage multiple tenants in a single instance of the Featurespace Platform.

CASE STUDY
FIS

The Fraud Fighting Dilemma – and its Answer

Reducing market share of fraud and bringing down business risk and cost are critical issues smart fraud fighters battle every day, as criminals become bolder. Of equal – if not more – importance is the need to protect the customer and make sure their payment journey is not interrupted, or that their trust levels are eroded through a painful, time-consuming, financial loss.

Friction in payments leads to a higher likelihood that a cardholder will switch to a different card or even an alternative payment solution altogether, creating even greater risks to any given card issuer. This has never been more acute than today, given the increases in card-not-present (CNP) spending and the ongoing evolution of the payments journey.

This seemingly endless conflict was disrupted through the creation of the TSYS Foresight Score℠, a groundbreaking technology partnership between FIS Total Issuing Solutions and Featurespace.
Its success was grounded in TSYS's mission to put people first and help them unlock endless payment opportunities Featurespace's technology, that analyzes transactions across the payment journey and accurately predicts behavior in real time, even as underlying behavior changes.

Since then, financial institutions from around the world have put their trust in the TSYS Foresight Score, benefitting from transactions being scored. With 4.3 billion processed transactions by 2021, these financial institutions have benefited on average from 15% increases in overall fraud detection and 34% decreases in false positives, generating as much as a 70% decrease in net fraud.[1]

4.3bn
transactions to date

70%
decrease in net fraud

1 TSYS Foresight Score data, 2021

THE CHALLENGE

A global card issuer had to improve its fraud detection accuracy, as it was significantly impacting customer experience and business performance.

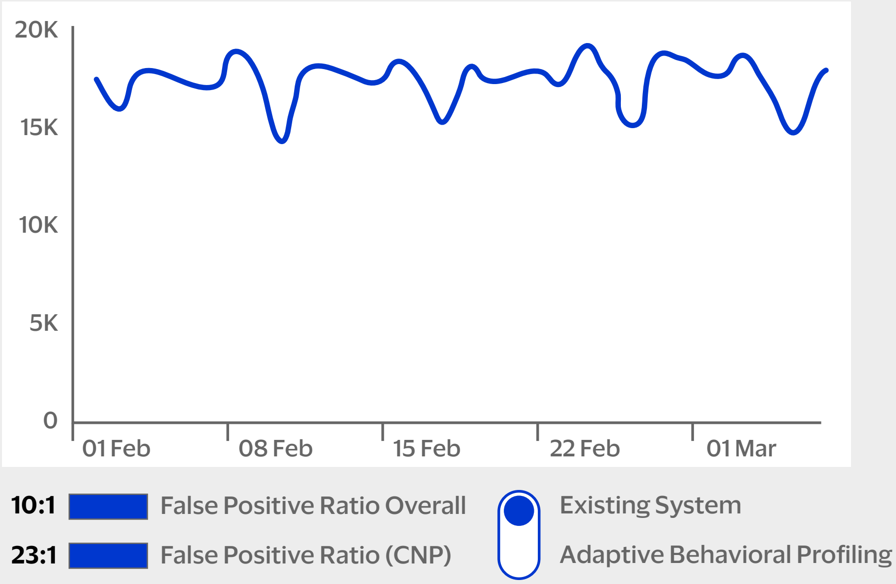
False positive ratios

10:1

For every card present (CP) fraud attack stopped by the card issuer, the incumbent system blocked 10 genuine transactions.

23:1

For every card not present (CNP) fraud attack stopped, the incumbent system blocked 23 genuine transactions.



The business impact

Fraud investigators were dealing with over 20,000 false positive transactions per week.

A large number of analysts worked on rotation to manually rewrite detection system rules as new fraud vectors were being identified.

New, tighter rules increased the number of false positives, and call centers were overloaded with unhappy customers.

The solution

- TSYS Foresight Score, powered by Featurespace, was deployed into TSYS CardGuard.
- TSYS Foresight Score rapidly ingested and processed eight months of existing customer transaction data to build a model.
- TSYS Foresight Score's model learning produced cardholder profiles and scores that were used to enhance the customer's ability to mitigate risk through integration in TSYS's fraud monitoring solutions.

> We were in a downward spiral, hemorrhaging money, constantly behind the criminal and never able to please the customer. It was a nightmare.
> **Chief Risk Officer from the issuing bank**

INDUSTRY GAME CHANGING RESULTS[2]

3:1

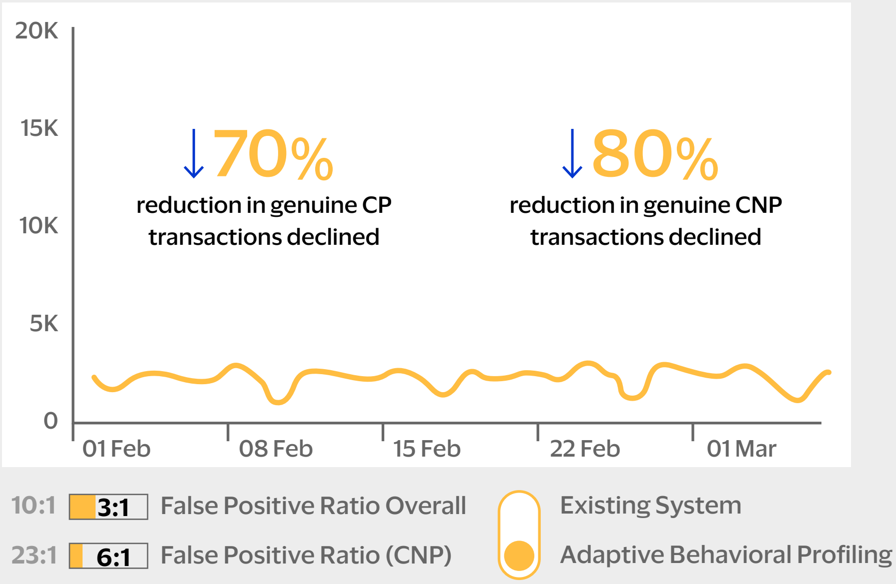
For every genuine fraud attack, only 3 customer transactions were interrupted.

6:1

And for every genuine fraud attack identified in a digital transaction, only 6 customer transactions were interrupted.

Featurespace's Adaptive Behavioral Analytics enabled simultaneous false positive reduction and more accurate fraud detection.

↓39% Reduction in fraud losses



The business impact

- More fraud blocked and losses reduced.
- More transactions processed and customer friction reduced.
- Greater operational efficiencies in call centers.
- Fraud analysts could work on higher value cases.
- Fraud management costs reduced.
- The issuer received a higher Net Promoter Score, resulting in happier cardholders.

> Foresight Score was a game changer for us – truly transformational. We reduced our market share of fraud and could finally get our heads up and begin innovating again.
> **Chief Operating Officer**

LOOKING AHEAD

Well, we know a 'risk-free' future doesn't exist, but a vastly reduced one does. The TSYS Foresight Score provides:

- >30% increase in fraud catch rates.
- Zero model impact of card reissuing – historical data follows the customer.

> The latest version of Foresight's performance is even better! Foresight Score outperforms on all metrics. The technology is in a constant challenger environment and wins every time.
> **Paul Daffin, EVP Product Strategy and Transformation, FIS Total Issuer Solutions**

2 Global card issuer data, 2021

About Featurespace

World leaders in machine learning for solving risk challenges

Born out of 30 years of research at Cambridge University

Trusted by the most respected banks and payments companies in the world

Unique real-time machine learning methodology

Multi-award winning platform and best machine learning models

Inventors of Adaptive Behavioral Analytics and Automated Deep Behavioral Networks

We are delighted to be partnering with Featurespace, a business with world-class machine learning technology. We are always looking to work with innovative companies and are confident that this partnership will deliver superior outcomes for our customers by preventing more fraudulent transactions whilst reducing the number of genuine transactions that are declined.
Wordpay from FIS

Find out more

Book your demo of the Featurespace Platform.

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